

**SECRET**

25X1

FY-67 Quarterly Report No. 1

PAR 245

31 Aug 66

SUBJECT: BPE High-Magnification Lens Sets

## TASK/PROBLEM

1. Design, fabricate and test prototype optical systems to extend the Briefing Print Enlarger (prototype) PAR 243A, upper limit magnification range from 60X to 140X - 160X.

## DISCUSSION

2. On 6 Jun 66, we were authorized by message 7391 to proceed with this project.

3. Specification 469-334, for the optical design of two lenses and an associated condenser system for each, was prepared and released to the contractor's optical design group. They were authorized to design both objective lenses and the necessary condenser lenses. A copy of the referenced specification was appended to the 30 Jun 66 Monthly Report.

4. The 95X to 150X objective lens design has been completed and the condenser system for this lens is being designed.

5. The 60X to 95X objective lens design (at the date of this report) showed excess oblique spherical aberration at the extreme edges of the field. The design is being studied for means to reduce excess aberration.

## PLANNED ACTIVITY

6. Continue design on the 95X to 150X condenser system and the 60X to 95X objective lens.

7. Design the 60X to 95X condenser system after a satisfactory objective lens design is obtained.

8. Design the objective lens mounts and the condenser/lamphouse assemblies after the optical designs are completed.

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